



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/826,957	04/08/2004	Howard G. Dolezal JR.	CGL02/0295US1	2273

38550 7590 12/22/2010
CARGILL, INCORPORATED
P.O. Box 5624
MINNEAPOLIS, MN 55440-5624

EXAMINER

STULII, VERA

ART UNIT	PAPER NUMBER
----------	--------------

1781

MAIL DATE	DELIVERY MODE
-----------	---------------

12/22/2010

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/826,957	Applicant(s) DOLEZAL ET AL.	
	Examiner VERA STULII	Art Unit 1781	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 October 2010.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 34-67, 69 and 70 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 34-67 and 69-70 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claims 34-38, 43, 45-54, 59-60, 62-67, 69 and 70 are rejected under 35 U.S.C. 103(a) as being unpatentable over Neraal (GB 968,331) in view of Wulf et al (Relationships among glycolytic potential, dark cutting (dark, firm, and dry) beef, and cooked beef palatability) for the reasons as stated in the Non-Final Office action mailed 07/06/2010.

Claims 39- 42 and 55-58 are rejected under 35 U.S.C. 103(a) as being unpatentable Neraal (GB 968,331) in view of Wulf et al (Relationships among glycolytic potential, dark cutting (dark, firm, and dry) beef, and cooked beef palatability) as applied to claim 34 and further in view of Formanek et al (US 6,379,739) for the reasons as stated in the Non-Final Office action mailed 07/06/2010.

Claims 44 and 61 are rejected under 35 U.S.C. 103(a) as being unpatentable Neraal (GB 968,331) in view of Wulf et al (Relationships among glycolytic potential, dark cutting (dark, firm, and dry) beef, and cooked beef palatability) as applied to claim 34 and further in view Holdren et al (5,736,186) for the reasons as stated in the Non-Final Office action mailed 07/06/2010.

Response to Arguments

Applicant's arguments filed 10/06/2010 have been fully considered but they are not persuasive. On page 7 of the Reply to the Non-Final Office action mailed 07/06/2010, Applicants state that "Neraal does not recognize dark cutter meats as a problem, and is in fact adding the additive to the meat in order to preserve a red color, not to lighten it. In fact, Neraal adds acid to prevent meat from lightening -not to lighten it". In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986). Neraal is not relied upon as a teaching of the problems associated with the dark cutting meat. Wulf is relied upon as a teaching of the problems associated with the dark cutting meat. Further in this regard, it is noted that Neraal is not adding acid to prevent lightening, but rather to prevent undesirable changes in meat color, when unfavorable oxidation of myoglobin (meat's red coloring agent) into metamyoglobin (gray color) occurs. In this context, formation of gray color due to the oxidation of myoglobin is not the same as "lightening". "Lightening" in this context is improvement in color of dark cutting meats due to the addition of pH-reducing agent and reduction of pH. Neraal is also concerned with undesirable changes in color of meat when pH is too high (above 6.5). Therefore, Neraal recognizes the problems associated with coloring of meat when pH of meat is too high, and solves this problem by addition of pH reducing agents such

Art Unit: 1781

as ascorbic acid in combination with buffering agent as claimed in claims 45-49 and 62-66.

In regard to Applicants' arguments regarding Wulf reference, it is noted that Wulf et al discloses that 2.7% increase of the incidence of dark-cutting carcasses costs the beef industry \$172 million annually (Introduction p. 1895). Wulf et al discloses that "[d]ark cutting beef results from cattle with lower-than-normal muscle glycogen stores at the time of slaughter, which causes lower-than-normal lactic acid production after slaughter and a higher-than-normal ultimate meat pH" (Introduction p. 1895). Wulf et al discloses various problems associated with dark-cutting meat due to the high pH values of such meat. Wulf et al discloses that "[d]ark cutting beef is undesirable because it is aesthetically unpleasant and because it is more susceptible to microbial growth" (Introduction p. 1895). Wulf et al discloses identifying meat in a dark-cutting carcass by evaluating grading pH and color (page 1896 col. 1 §§ 2-3). Therefore, Wulf recognizes the problem associated with the undesirable color of dark-cutting meats due to the higher-than-normal ultimate meat pH. Therefore, both references are concerned with the undesirable color of meat associated with higher-than-normal meat pH.

Since dark-cutting carcasses have deficient color, are undesirable, aesthetically unpleasant and more susceptible to microbial growth, one of ordinary skill in the art would have been motivated to modify Neraal et al and to employ pH reducing treatment for meat derived from dark-cutting carcasses in order to reduce pH to the values associated with normal beef. One of ordinary skill in the art would have been motivated to do so in order to improve the color of meat, and also to produce more desirable,

Art Unit: 1781

aesthetically pleasant and less susceptible to microbial growth meat cuts. Since Wulf disclose vast financial costs for beef industry associated with production of dark-cutting carcasses, one of ordinary skill in the art would have been motivated to employ pH reducing treatment in order to improve appearance, appeal to a consumer and value of the meat product, which would lead to higher appraisal and increase in sales of such meat product. One of ordinary skill in the art would have been motivated to employ pH reducing treatment for meat derived from the dark-cutting carcasses, since Wulf et al discloses various deficiencies of dark-cutting meat associated with abnormally high pH.

In regard to the lightening of color (page 8 of the Reply), it is noted that although the references do not specifically disclose every possible quantification or characteristic of its product, such as lightening of the meat color due to the addition of the pH lowering agent, this characteristic would have been expected to be as claimed absent any clear and convincing evidence and/or arguments to the contrary. The combination of references disclose the same starting materials and methods as instantly (both broadly and more specifically) claimed, and thus one of ordinary skill in the art would recognize that the lightening of color, among many other characteristics of the product obtained by referenced method, would have been an inherent result of the process disclosed therein. The Patent Office does not possess the facilities to make and test the referenced method and product obtain by such method, and as reasonable reading of the teachings of the references has been applied to establish the case of obviousness, the burden thus shifts to applicant to demonstrate otherwise.

Art Unit: 1781

In response to applicant's argument that there is not motivation to combine the references and the fact of lightening the color of dark cutters, the fact that applicant has recognized another advantage which would flow naturally from following the suggestion of the prior art cannot be the basis for patentability when the differences would otherwise be obvious. See *Ex parte Obiaya*, 227 USPQ 58, 60 (Bd. Pat. App. & Inter. 1985).

In response to applicant's arguments against the references individually (pages 8-9 of the Reply), one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986). Formanek et al is relied upon as a teaching of contacting meats with acidulant systems comprising citric acid by marinating, static soaking, injecting or tumbling (Col. 1 lines 20-25, col. 2 lines 58-67, col. 3 lines 1-6). Holdren et al is relied upon as a teaching of encapsulation of acidulants in order to control the release of acidulant during the contact with meat (Col. 5 bottom paragraph, Col. 6).

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

Art Unit: 1781

the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to VERA STULII whose telephone number is (571)272-3221. The examiner can normally be reached on 7:00 am-3:30 pm, Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Keith Hendricks can be reached on (571) 272-1401. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Vera Stulii/
Examiner, Art Unit 1781

/Keith D. Hendricks/
Supervisory Patent Examiner, Art Unit 1781